

Appl. No. 09/742,177
Amdt. Dated September 7, 2004
Reply to Office action of June 7, 2004
Attorney Docket No. P12670-US1
EUS/J/P/04-4004

Amendments to the Claims:

This listing of Claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) In an Internet Protocol (IP) network having a plurality of nodes, a method of dynamically designating a queue-responsible node comprising the steps of:

- (a) determining the IP addresses of said plurality of nodes;
- (b) ranking the IP addresses of said plurality of nodes;
- (c) determining whether a master node is installed and if not, automatically designating the node with the highest IP address as said master node;

~~(a) utilizing the IP addresses of said plurality of nodes to dynamically designate the ~~the~~ master node;~~

- ~~(b) (d) designating all other nodes as slave nodes; and~~
- ~~(e) (e) maintaining the queue positions of all nodes in the network in a master queue at said master node.~~

2. (Original) The method of claim 1 wherein said designating steps are performed by comparing numerical values of node IP addresses.

3. (Canceled)

4. (Currently Amended) The method of claim 1 wherein the node having the lowest ranking IP address is designated said master node.

5. (Original) The method of claim 1 wherein each node of the network is capable of functioning as either said master node or one of said slave nodes.

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6. (Original) The method of claim 1 further comprising the step of maintaining a copy of said master queue at one or more of said slave nodes.

7. (Original) The method of claim 6 wherein said step of maintaining a copy of said master queue is performed at each of said slave nodes.

8. (Original) The method of claim 1 further comprising the step of each slave node requesting a queue position from said master node for access to shared network resources.

9. (Original) The method of claim 1 further comprising the step of detecting the connection of one or more additional nodes to the network and thereupon reiterating said steps (a) through (c).

10. (Currently Amended) The method of claim 1 further comprising the step of detecting the disconnection of one or more nodes from the network and thereupon reiterating said steps (a) through (e) ~~(e)~~.

11. (Original) The method of claim 10 further comprising the step of deleting from said master queue all queue positions corresponding to said disconnected nodes.

12. (Currently amended) In an Internet Protocol (IP) network having a plurality of nodes, a method of dynamically designating a queue-responsible node comprising the steps of:

(a) determining the IP addresses of said plurality of nodes;

(b) ranking the IP addresses of said plurality of nodes;

(c) determining whether a master node is installed and if not, automatically designating the node with the highest IP address as the master node;

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~~(a) utilizing the IP addresses of said plurality of nodes to designate a master node;~~

~~(b) (d)~~ designating all other nodes as slave nodes;

~~(e) (e)~~ maintaining the queue positions of all nodes in the network in a master queue at said master node;

~~(d) (f)~~ detecting changes in the number and identity of nodes connected to the network and thereupon reiterating steps (a) through ~~(f) (e)~~.

13. (Currently Amended) The method of claim 12 wherein step ~~(d) (f)~~ comprises detecting the disconnection of the master node from the network.

14. (Currently Amended) The method of claim 12 wherein step ~~(d) (f)~~ comprises detecting the connection of one or more additional nodes to the network.

15. (Currently Amended) The method of claim 12 wherein step ~~(d) (f)~~ comprises detecting the disconnection of one or more slave nodes from the network, further comprising the step of

deleting from the master queue all queue positions corresponding to said one or more disconnected slave nodes.

16. (Currently amended) A system for queue-handling in an Internet Protocol (IP) network having a plurality of nodes, comprising:

a master node;

a master queue at said master node for maintaining queue positions of all nodes in the network;

one or more slave nodes;

software for automatically designating said master node and said one or more slave nodes said software comprising instructions for:

(a) determining the IP addresses of said plurality of nodes;

(b) ranking the IP addresses of said plurality of nodes;

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(c) determining whether a master node is installed and if not, automatically designating the node with the highest IP address as the master node;

(d) designating all other nodes as slave nodes;

(e) maintaining the queue positions of all nodes in the network in a master queue at said master node; according to the IP addresses of the nodes connected to the network at any given time; and

software for detecting changes in the number and identity of nodes connected to the network.

17. (Original) The system of claim 16 further comprising software associated with one or more of said slave nodes for maintaining a copy of said master queue at said one or more slave nodes.

18. (Original) The system of claim 16 further comprising software associated with each of said nodes for maintaining a copy of said master queue at each of said slave nodes.

19. (Original) The system of claim 16 wherein the network comprises a Local Area Network (LAN).

20. (Original) The system of claim 16 wherein the network comprises a Virtual Local Area Network (VLAN).

21. (Original) The system of claim 16 wherein the network comprises a Wide Area Network (WAN).

22.-28 (Canceled)